TRANSLATOR'S VERIFICATION

I hereby declare and state that I am knowledgeable of each of the German and English languages and that I made and reviewed the attached translation of the amended sheets of International PCT Patent Application No. PCT/EP2005/051478 from the German language into the English language, and that I believe my attached translation to be accurate, true and correct to the best of my knowledge and ability.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

September 13, 2006

Date

D. Mullen

Signature

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Typed name

Patent claims

1. Distance meter, in particular for telescope arrangements in earth- or space-supported applications for the measurement of surfaces, comprising at least

   - a radiation source for the emission of electromagnetic radiation (ES), in particular of laser light, to a target to be surveyed,
   - a receiver unit having a sensor (11) for receiving radiation (S) reflected by the target and for deriving distance information from the received radiation by the pulse transit time or phase measurement method,
   - at least one spatial filter component (6, 6'), the spatial filter component (6, 6') being formed and arranged so that the angular range of reception of the reflected radiation (S) is limited,

   characterized by a first spectral filter component (4) located upstream of the spatial filter component in the receiving direction and reflecting in the infrared range.

2. Distance meter according to Claim 1, characterized in that the spatial filter component (6, 6') is in the form of an optical fibre (6), in particular having a microlens (5) located upstream in the receiving direction.

3. Distance meter according to either of the preceding Claims, characterized in that the spatial filter component (6') is a fibre laser having a multimodal sheath and an active fibre core (6a).

4. Distance meter according to Claim 3, characterized in that the reflected radiation (S) is passed through the multimodal sheath, in particular with an optical cover (6b) between the fibre core (6a) and the sensor (11).

5. Distance meter according to Claim 3, characterized in that the reflected radiation (S) is passed through the active fibre core (6a), in particular with an optical switch between the fibre core and the sensor (11).

6. Distance meter according to any of the preceding Claims, characterized by a second spectral filter component (1), in particular a filter located upstream of the first spectral filter component (4) in the receiving direction and reflecting in the UV range.

7. Distance meter according to any of the preceding Claims, characterized by a narrowband third spectral filter component (7) between first spectral filter component (4) and sensor (11), in particular having a spectral width of less than 1 nm about the wavelength of the emitted radiation (ES).

8. Distance meter according to Claim 7, characterized in that the third spectral filter component (7) is an interferometric and/or a spatially periodic structure, preferably a Fabry-Perot interferometer or a reflecting grating structure.

9. Distance meter according to any of the preceding Claims, characterized by at least two spatial filter components (6, 6'), in particular having a coordinated multi-lens array (2a'), preferably the multi-lens array (2a') being formed as a structure of a ZnSe plate (2').

10. Distance meter according to Claim 9, characterized in that spatial filter components (6, 6') and multi-lens array (2a') are fixed by a hexagonal honeycomb-like structure, in particular comprising beryllium.